	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:24:12 ON 16 APR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 APR 2005 HIGHEST RN 848629-85-6
DICTIONARY FILE UPDATES: 15 APR 2005 HIGHEST RN 848629-85-6

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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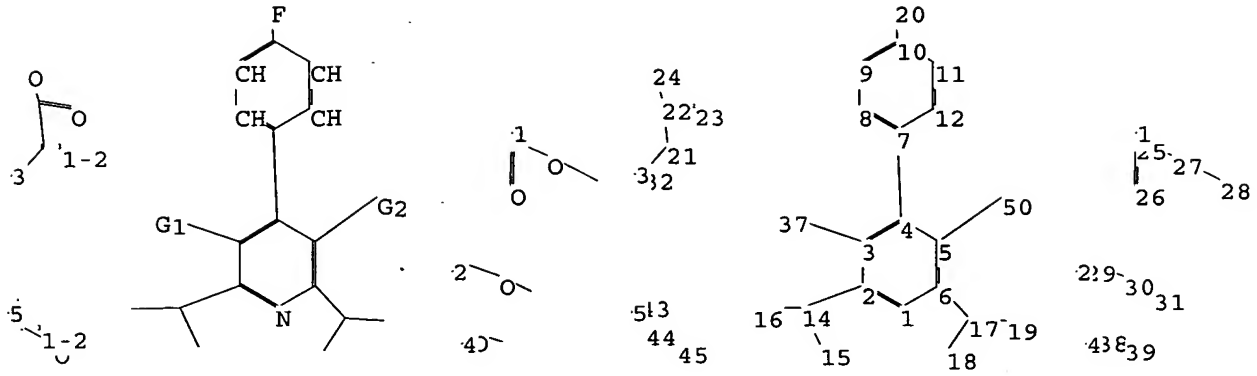
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
**********************************************************************
```

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\10-624659z.str



chain nodes :
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 37 38
39 43 44 45 50
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
2-14 3-37 4-7 5-50 6-17 10-20 14-15 14-16 17-18 17-19 21-22 21-32 22-23
22-24 25-26 25-27 27-28 29-30 30-31 38-39 43-44 44-45
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-37 5-50 22-23 22-24 25-26 25-27 27-28 29-30 30-31 38-39 44-45
exact bonds :
2-14 4-7 6-17 10-20 14-15 14-16 17-18 17-19 21-22 21-32 43-44
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 :

G1:[*1],[*2]

G2:[*3],[*1],[*2],[*4],[*5]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 37:CLASS 38:CLASS 39:CLASS
43:CLASS 44:CLASS 45:CLASS 50:CLASS

```
L1      STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1 ful
FULL SEARCH INITIATED 16:24:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    300 TO ITERATE

100.0% PROCESSED     300 ITERATIONS                          10 ANSWERS
SEARCH TIME: 00.00.01

L2           10 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               161.33     161.54

FILE 'CAPLUS' ENTERED AT 16:24:33 ON 16 APR 2005
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FILE COVERS 1907 - 16 Apr 2005  VOL 142 ISS 17
FILE LAST UPDATED: 15 Apr 2005  (20050415/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

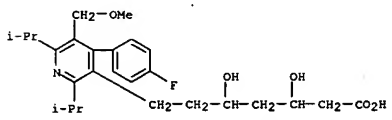

=> s l2
L3           13 L2

=> d ibib abs hitstr tot
```

L3 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:715215 CAPLUS
DOCUMENT NUMBER: 141:376044
TITLE: Hydrogen Bonding Interactions of Covalently Bonded Fluorine Atoms: From Crystallographic Data to a New Angular Function in the GRID Force Field
AUTHOR(S): Carosati, Emanuele; Sciabola, Simone; Cruciani, Gabriele
CORPORATE SOURCE: Laboratory for Chemometrics and Cheminformatics, Department of Chemistry, University of Perugia, Perugia, I-06123, Italy
SOURCE: Journal of Medicinal Chemistry (2004), 47(21), 5114-5125
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Through the years the GRID force field has been tuned to fit exptl. observations in crystal structures. This paper describes the determination of the hydrogen bonding pattern for organic fluorines based on an exhaustive inspection of the Protein Data Bank. All the PDB complexes, whose protein structures have cocrystd. fluorine-containing ligands, were examined and geometrically inspected. By applying statistics, the hydrogen bonding geometry was described as a distribution function of the angle at the fluorine: a new specific angular function was consequently defined and inserted in the program GRID to estimate the effect of fluorine hydrogen bonds on the ligand-protein binding. All the fluorine-containing ligands collected from the PDB were docked within their corresponding protein binding sites: introducing the fluorine hydrogen bonding contribution improves the results of the docking expts. in terms of accuracy and ranking.

IT 782501-49-9
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(modeling hydrogen bonding interactions of covalently bonded fluorine atoms in protein ligands)
RN 782501-49-9 CAPLUS
CN 3-Pyridineheptanoic acid, 4-(4-fluorophenyl)-β,δ-dihydroxy-5-(methoxymethyl)-2,6-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



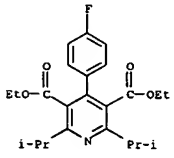
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

L3 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:97696 CAPLUS
DOCUMENT NUMBER: 137:72537
TITLE: Discovery of 5-Hydroxyalkyl-4-phenylpyridines as a New Class of Glucagon Receptor Antagonists
AUTHOR(S): Ladouceur, Gaetan H.; Cook, James H.; Doherty, Elizabeth M.; Schoen, William R.; MacDougall, Margit L.; Livingston, James N.
CORPORATE SOURCE: Department of Chemistry Research, Bayer Research Center, West Haven, CT, 06516, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(3), 461-464
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 5-Hydroxyalkyl-4-phenylpyridines have been identified as a novel class of glucagon antagonists with potential utility for the treatment of diabetes. A lead structure with moderate activity was discovered through a high throughput screening assay. Structure-activity relationships led to the discovery of a potent antagonist, IC50=0.11 μM, more than 60-fold improvement over the lead structure.

IT 124863-79-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydroxyalkylphenylpyridines as glucagon receptor antagonists)
RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

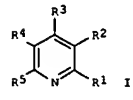


REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:63497 CAPLUS
DOCUMENT NUMBER: 136:102298
TITLE: Preparation of substituted pyridines
INVENTOR(S): Norbert, Lui; Panskus, Hans; Schnatterer, Albert
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002020372	A2	20020123	JP 2001-169465	20010605
DE 10111874	A1	20011213	DE 2001-10111874	20010313
PRIORITY APPLN. INFO.:			DE 2000-10028141 A	20000608
			DE 2001-10111874 A	20010313
			DE 2000-10028414 A1	20000608

OTHER SOURCE(S): CASREACT 136:102298; MARPAT 136:102298
GI



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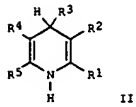
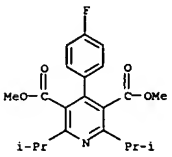


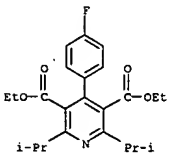
II

AB Title compds. I (R1, R5 = C1-10 alkyl, C6-10 aryl; R2, R4 = H, C1-10 alkyl, CN, CO2R6; R6 = C1-10 alkyl; R3 = H, C1-10 alkyl, (un)substituted C6-10 aryl) are prepared by reaction of 1,4-dihydropyridine II (R1-R5 = same as I) with Me nitrite in the presence of acids containing <20% oxidizing components. 4-(4-Fluorophenyl)-2,6-diisopropyl-3,5-di(methoxycarbonyl)-1,4-dihydropyridine was oxidized with Me nitrite in the presence of HCl at

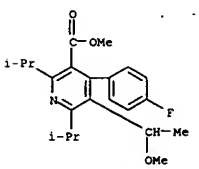
L3 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
60° to give 98% 4-(4-fluorophenyl)-2,6-diisopropyl-3,5-di(methoxycarbonyl)pyridine.
IT **122549-42-2P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of substituted pyridines)
RN 122549-42-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(prepn. of substituted biphenyls as glucagon receptor antagonists)
RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)



IT **202857-49-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted biphenyls as glucagon receptor antagonists)
RN 202857-49-6 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-5-(1-methoxyethyl)-2,6-bis(1-methylethyl)-, methyl ester (9CI) (CA INDEX NAME)

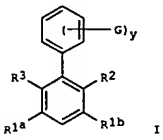


REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:278024 CAPLUS
DOCUMENT NUMBER: 134:311111
TITLE: Preparation of substituted biphenyls as glucagon receptor antagonists
INVENTOR(S): Schoen, William R.; Ladouceur, Gaetan H.; Cook, James H., II; Lease, Timothy G.; Wolanin, Donald J.; Kramss, Richard H.; Hertzog, Donald L.; Osterhout, Martin H.
PATENT ASSIGNEE(S): Bayer Corporation, USA; Bayer A.-G.
SOURCE: U.S., 156 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6218431	B1	20010417	US 1997-904119	19970731
PRIORITY APPLN. INFO.:			US 1997-904119	19970731

OTHER SOURCE(S): MARPAT 134:311111
GI



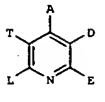
AB Substituted biphenyls I [R1a, R1b = alkyl; R2 = alkyl with substituents from 1 to 3 of SR7; R7 = Ph, or substituted Ph wherein the substituents are independently 1-5 of halogen, trifluoromethyl, alkyl, alkoxy, nitro, cyano, hydroxyl; R3 = alkyl with substituents of 1-2 hydroxyl groups; G represents a substituent selected from the group consisting of halogen, alkyl, OR4 with R4 = H, alkyl; y = 0-3], glucagon receptor antagonists. E.g., reduction of 2-cyclopentyl-6-ethyl-4-(4-fluorophenyl)-3-(3-trifluoromethylbenzyloxymethyl)pyridine-5-carboxylic acid Et ester with LiAlH4 gave 76.5% 2-cyclopentyl-6-ethyl-4-(4-fluorophenyl)-5-hydroxymethyl-3-(3-trifluoromethylbenzyloxymethyl)pyridine.
IT **124863-79-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

L3 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:105938 CAPLUS
DOCUMENT NUMBER: 128:167354
TITLE: Preparation of substituted pyridines and biphenyls as anti-hypercholesteremic, anti-hyperlipoproteinemic and anti-hyperglycemic agents
INVENTOR(S): Schmidt, Gunter; Angerbauer, Rolf; Brandes, Arndt; Muller-Gliemann, Matthias; Bischoff, Hilmar; Schmidt, Delf; Wohlfeil, Stefan; Schoen, William R.; Ladouceur, Gaetan H.; Cook, James H., II; Lease, Timothy G.; Wolanin, Donald J.; Kramss, Richard H.; Hertzog, Donald L.; Osterhout, Martin H.
PATENT ASSIGNEE(S): Bayer Corporation, USA; Bayer Aktiengesellschaft
SOURCE: PCT Int. Appl., 431 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9804528	A2	19980205	WO 1997-US13248	19970729
WO 9804528	A3	19991111		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2262434	AA	19980205	CA 1997-2262434	19970729
AU 9738971	A1	19980220	AU 1997-38971	19970729
ZA 9706730	A	19990729	ZA 1997-6730	19970729
EP 934274	A1	19990811	EP 1997-936259	19970729
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1239474	A	19991222	CN 1997-198258	19970729
TR 9902325	T2	20000221	TR 1999-9902325	19970729
TR 9902326	T2	20000522	TR 1999-9902326	19970729
NZ 333951	A	20000929	NZ 1997-333951	19970729
BR 9710637	A	20001031	BR 1997-10637	19970729
JP 2001512416	T2	20010821	JP 1998-509068	19970729
RU 2195443	C2	20021227	RU 1999-104527	19970729
TW 520360	B	20030211	TW 1997-86110851	19970729
NO 9900399	A	19990329	NO 1999-399	19990128
NO 314143	B1	20030203		
KR 2000029723	A	20000525	KR 1999-700826	19990130
PRIORITY APPLN. INFO.:			US 1996-690111 A	19960731
			WO 1997-US13248 W	19970729

OTHER SOURCE(S): MARPAT 128:167354
GI

L3 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)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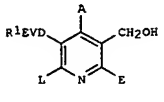
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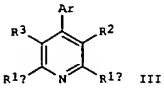
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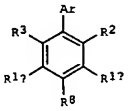

IV

AB The title compds. [I (A = (un)substituted C6-10 aryl; D = up to 8 carbon atoms alkyl which is substituted by hydroxy; E, L = (un)substituted up to 8 carbon atoms alkyl; L = (un)substituted C6-10 aryl; T = R7X, R8C(R9)(R10); R7, R8 = cycloalkyl, aryl, etc.; R9, R10 = H, halo, N3, etc.), II (R1 = cycloalkyl, aryl, etc.; E, D = alkyl (up to 8 carbon atoms); E = a bond; V = O, S, NH, etc.), III (R1a, R1b = CF3, C1-10 alkyl, C1-10 alkenyl, etc.; R2 = C1-10 alkyl, C1-10 alkenyl, etc.; R3 = OH, CF3, C1-6 alkanoyl, etc.; Ar = (un)substituted heteroaryl, aryl), IV], useful for the inhibition of cholesterol ester transfer proteins (CETP) (I), for the treatment of hyperlipoproteinemia (II), and for inhibition of the glucagon receptor, leading to treatment of glucagon-mediated conditions such as diabetes (III-IV), were prepared Thus, reduction of Et 2,6-diisopropyl-4-(4-fluorophenyl)-3-[(4-fluorophenyl)-chloromethyl]pyridine-5-carboxylate (preparation described) with LiAlH4 in THF afforded 69% I [A = 4-FC6H4; D = CH2OH; E = L = iPr; T = 4-FC6H4CH2]. For example, compound I [A = 4-FC6H4; D = CH2OH; E = L = iPr; T = 4-FC6H4CH(NH2)] showed IC50 of 0.6 μM against CETP.

IT **124863-79-2P 202857-49-6P**

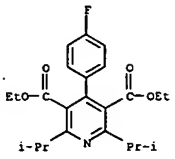
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted pyridines and biphenyls as anti-hypercholesteremic, anti-hyperlipoproteinemic and anti-hyperglycemic agents)

RN 124863-79-2 CAPLUS

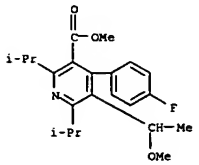
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 202857-49-6 CAPLUS

CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-5-(1-methoxyethyl)-2,6-bis(1-methylethyl)-, methyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:55679 CAPLUS

DOCUMENT NUMBER: 128:127938

TITLE: Antiatherosclerotic 6-(hydroxymethylethyl)pyridines

INVENTOR(S): Fey, Peter; Angerbauer, Rolf; Schmidt, Delf; Bischoff, Hilmar; Kanhai, Wolfgang; Radtke, Martin; Karl, Wolfgang

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 26 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

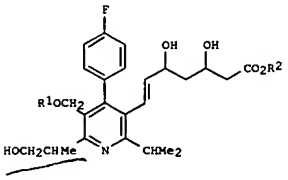
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19627420	A1	19980115	DE 1996-19627420	19960708
EP 818447	A1	19980114	EP 1997-110276	19970624
EP 818447	B1	20040526		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 267807	E	20040615	AT 1997-110276	19970624
PT 818447	T	20040831	PT 1997-110276	19970624
ES 2219711	T3	20041201	ES 1997-110276	19970624
US 5849749	A	19981215	US 1997-883695	19970627
JP 10067744	A2	19980310	JP 1997-192010	19970703
CA 2209550	AA	19980108	CA 1997-2209550	19970704

PRIORITY APPLN. INFO.: DE 1996-19627420 A 19960708

OTHER SOURCE(S): MARPAT 128:127938

GI


I

AB Title compds. I [R1, R2 = H, Me] were prepared for use in treatment of atherosclerosis (no data). Thus, (3R,5S,1'S)-I [R1 = Me, R2 = H] was prepared from (R)-Me3CSiPh2OCH2CHMeCOCH2CO2Me and 4-FC6H4CH:C(CO2Me)COCHMe2 in 10 steps.

IT **189060-08-0P 189060-14-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

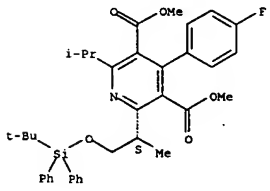
(preparation of antiatherosclerotic dihydroxy(hydroxymethylethyl)pyridinehex enoates)

L3 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 189060-08-0 CAPLUS

CN 3,5-Pyridinedicarboxylic acid, 2-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-4-(4-fluorophenyl)-6-(1-methylethyl)-, dimethyl ester, (S)- (9CI) (CA INDEX NAME)

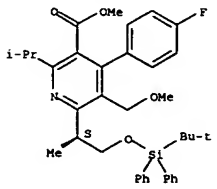
Absolute stereochemistry.



RN 189060-14-8 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-4-(4-fluorophenyl)-5-(methoxymethyl)-2-(1-methylethyl)-, methyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:193432 CAPLUS
DOCUMENT NUMBER: 126:287522
TITLE: Metabolism of cerivastatin by human liver microsomes in vitro. Characterization of primary metabolic pathways and of cytochrome P450 isoenzymes involved
AUTHOR(S): Boberg, Michael; Angerbauer, Rolf; Fey, Peter; Kanhai, Wolfgang K.; Karl, Wolfgang; Kern, Armin; Ploschke, Juergen; Radtke, Martin
CORPORATE SOURCE: Department of Drug Metabolism and Isotope Chemistry, Pharma Product Development, Bayer AG, Wuppertal, D-42096, Germany
SOURCE: Drug Metabolism and Disposition (1997), 25(3), 321-331
CODEN: DMDSAI; ISSN: 0090-9556
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

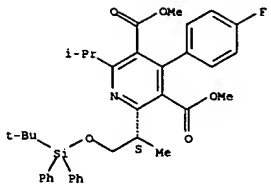
AB Biotransformation of cerivastatin, a new cholesterol-lowering drug, by human liver microsomes was investigated using the 14C-labeled drug. Metabolite profiles were established by HPLC and structures of metabolites were elucidated. Two metabolic pathways were equally important, demethylation of the benzylic Me ether and hydroxylation at one Me group of the 6-iso-Pr substituent. The product of combined hydroxylation and demethylation was observed as a minor metabolite. During sample preparation the lactone forms of both primary metabolites were isolated in small amts. Detailed structural anal. by NMR and LC-ESI-MS showed that hydroxylation occurred with high regio- and stereoselectivity. The proposed structures were confirmed by chemical synthesis of enantiomerically pure reference compds.
Microsomes from a human lymphoblastoid AHH-1 cell line, stably expressing CYP 3A4, catalyzed the demethylation reaction. Upon incubation of cerivastatin with human liver microsomes in the presence of the specific CYP 3A inhibitor TAO, both hydroxylation and demethylation were considerably reduced. This indicates that CYP 3A enzymes play a major role in cerivastatin metabolism

IT **189060-08-0P 189060-14-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(cytochrome P 450 isoenzymes and pathways in metabolism of cerivastatin by human liver microsomes in vitro)

RN 189060-08-0 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 2-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-4-(4-fluorophenyl)-6-(1-methylethyl)-, dimethyl ester, (S)- (9CI) (CA INDEX NAME)

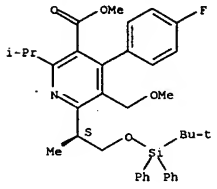
Absolute stereochemistry.

L3 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 189060-14-8 CAPLUS
CN 3-Pyridinecarboxylic acid, 6-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-4-(4-fluorophenyl)-5-(methoxymethyl)-2-(1-methylethyl)-, methyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

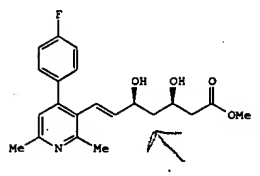


L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:428008 CAPLUS
DOCUMENT NUMBER: 119:28008
TITLE: 7-(polysubstituted pyridyl)-6-heptenoates useful for treating hyperproteinaemia, lipoproteinaemia or arteriosclerosis
INVENTOR(S): Angerbauer, Rolf; Fey, Peter; Huebsch, Walter; Philipps, Thomas; Bischoff, Hilmar; Petzinna, Dieter; Schmidt, Delf; Thomas, Guenter
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: U.S., 63 pp. Cont.-in-part of U.S. 5,006,530.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5169857	A	19921208	US 1990-627086	19901213
DE 3801406	A1	19890727	DE 1988-3801406	19880120
DD 283400	A5	19901010	DD 1989-325090	19890117
US 5006530	A	19910409	US 1989-298549	19890117
ZA 8900429	A	19900228	ZA 1989-429	19890119
HU 52053	A2	19900628	HU 1989-5141	19890119
US 5401746	A	19950328	US 1992-916928	19920720

PRIORITY APPLN. INFO.:
DE 1988-3801406 A 19880120
IT 1988-21317 A 19880711
US 1989-298549 A2 19890117
US 1990-627086 A3 19901213

OTHER SOURCE(S): CASREACT 119:28008; MARPAT 119:28008
GI



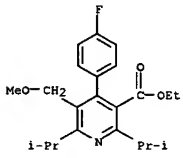
I

AB Substituted pyridine derivs., (E)-3,5-dihydroxy-7-(4-phenyl-3-pyridyl)-6-heptenoates, are claimed. The use of these compds. for the treatment of hyperlipoproteinemia, lipoproteinemia, or arteriosclerosis is claimed. Also claimed is Me (E)-erythro-7-[2-(4-fluorophenyl)-4-isopropyl-5-(methoxymethyl)-6-methyl-3-pyridyl]-3,5-dihydroxy-6-heptenoate (I). I was prepd. from Et 2-(4-fluorophenyl)-5-(methoxymethyl)-6-methyl-3-pyridinecarboxylate. The compds. thus prepd. are inhibitors of cholesterol synthesis (no data).

L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

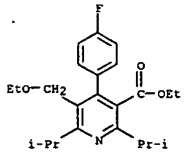
IT **124864-26-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as anticholesteremic and antiarteriosclerotic)

RN 124864-26-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT **124894-15-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for dihydroxy(phenylpyridyl)heptenoate (anticholesteremic and antiarteriosclerotic))

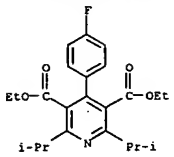
RN 124894-15-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 5-(ethoxymethyl)-4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



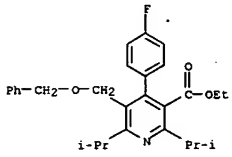
IT **124863-79-2 124863-88-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for dihydroxy(phenylpyridyl)heptenoate (anticholesteremic and antiarteriosclerotic))

RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

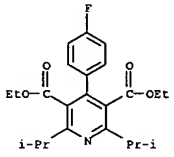
L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 124863-88-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-5-[(phenylmethoxy)methyl]-, ethyl ester (9CI) (CA INDEX NAME)



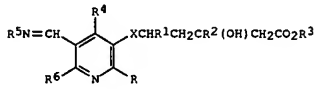
L3 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CHMe2, R1R3 = bond, R2 = H, R4 = 4-FC6H4, R5 = Me) were obtained.
IT 124863-79-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:207045 CAPLUS
DOCUMENT NUMBER: 114:207045
TITLE: Iminomethylpyridineheptenoates
INVENTOR(S): Angerbauer, Rolf; Fey, Peter; Huebsch, Walter; Philipps, Thomas; Bischoff, Himlar; Petzinna, Dieter; Schmidt, Delf
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 411420	A2	19910206	EP 1990-114015	19900721
EP 411420	A3	19911106		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3925636	A1	19910207	DE 1989-3925636	19890803
US 5064841	A	19911112	US 1990-558029	19900726
AU 9059974	A1	19910207	AU 1990-59974	19900730
AU 622342	B2	19920402		
CA 2022423	AA	19910204	CA 1990-2022423	19900801
JP 03066668	A2	19910322	JP 1990-202591	19900801
DD 298919	A5	19920319	DD 1990-343193	19900801
ZA 9006078	A	19910529	ZA 1990-6078	19900802
HU 56066	A2	19910729	HU 1990-4884	19900803
HU 59906	A2	19920728	HU 1991-1809	19900803
US 5183897	A	19930202	US 1991-687272	19910418
PRIORITY APPLN. INFO.:			DE 1989-3925636 A	19890803
			US 1990-558029 A3	19900726

OTHER SOURCE(S): CASREACT 114:207045; MARPAT 114:207045
GI



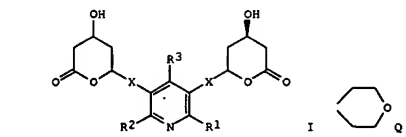
I

AB 3-Hydroxy-3-methylglutaryl-CoA-inhibiting and anticholesteremic (no data) pyridines I [X = CH2CH2, CH:CH; R = alkyl, aryl; R1 = OH, R2 = H, alkyl, R3 = H, alkyl, phenylalkyl; R1R3 = bond; R4 = (un)substituted aryl; R5 = (un)substituted aryl, alkyl; R6 = cycloalkyl, (un)substituted aryl, alkyl] were prepared in multiple steps. I (X = E-CH:CH, R = R6 = CHMe2, R1 = OH, R2 = H, R3 = Me, R4 = 4-FC6H4, R5 = Me, PhCH2, Me3C; X = E-CH:CH, R = R6 =

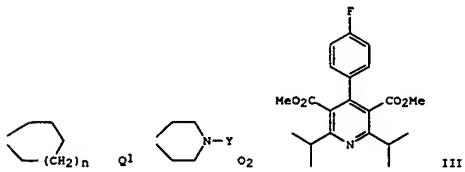
L3 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:164010 CAPLUS
DOCUMENT NUMBER: 114:164010
TITLE: Preparation of pyridine dimevalonolactone and analogs as HMG-CoA reductase inhibitors
INVENTOR(S): Chucholowski, Alexander
PATENT ASSIGNEE(S): Warner-Lambert Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4950675	A	19900821	US 1988-287497	19881221
PRIORITY APPLN. INFO.:			US 1988-287497	19881221

OTHER SOURCE(S): CASREACT 114:164010; MARPAT 114:164010
GI



I Q



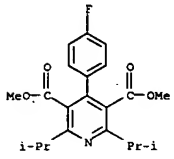
III

AB The title compds. [I; X = CH2CH2, CH:CH; R1, R2 = C1-6 alkyl, CF3, cyclopropyl, cyclohexyl(methyl), NR4R5; R3 = any of definitions for R1,R2, (un)substituted Ph or PhCH2; R4, R5 = H, C1-4 alkyl, R4R5N to close a (hetero)cyclyl moiety Q-Q2; Y = H, C1-4 alkyl; n = 0-5] or the corresponding N-oxides, useful as cholesterol biosynthesis inhibitors, were prepared I (R1 = R2 = Me2CH, R3 = 4-FC6CH4, X = CH:CH) (II) was prepared in 10 steps via pyridinedicarboxylate III (preparation by cyclocondensation of

L3 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
4-FC6H4CHO, Me2CHCOCH2CO2Me, and NH4OH in refluxing MeOH). In a cholesterol biosynthesis inhibition assay in rats, II at 1.0 mg/kg gave 65% inhibition in vivo.

IT 122549-42-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of HMG-CoA reductase inhibitor)

RN 122549-42-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

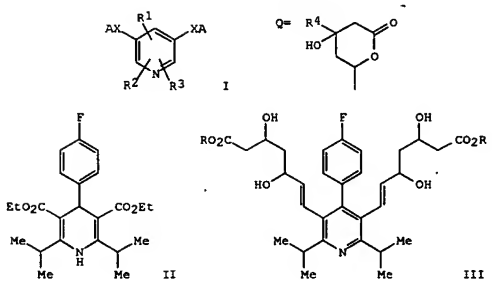
ACCESSION NUMBER: 1990:158057 CAPLUS
DOCUMENT NUMBER: 112:158057
TITLE: Pyridinediheptanoic acid derivatives useful as HMG-CoA reductase inhibitors, their preparation and intermediates, and pharmaceuticals containing them
INVENTOR(S): Angerbauer, Rolf; Fey, Peter; Huebsch, Walter; Philipps, Thomas; Bischoff, Hilmar; Petzinna, Dieter; Schmidt, Delf; Thomas, Guenter
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 60 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 325129	A2	19890726	EP 1989-100249	19890109
EP 325129	A3	19901219		
EP 325129	B1	19940907		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
DE 3801440	A1	19890803	DE 1988-3801440	19880120
NO 8900046	A	19890721	NO 1989-46	19890105
ES 2058343	T3	19941101	ES 1989-100249	19890109
US 4968689	A	19901106	US 1989-298453	19890117
IL 88971	A1	19930708	IL 1989-88971	19890117
FI 8900257	A	19890721	FI 1989-257	19890118
FI 92195	B	19940630		
FI 92195	C	19941010		
DD 283379	A5	19901010	DD 1989-325115	19890118
AU 8928613	A1	19890720	AU 1989-28613	19890119
AU 614810	B2	19910912		
DK 8900232	A	19890721	DK 1989-232	19890119
ZA 8900428	A	19891025	ZA 1989-428	19890119
JP 02001478	A2	19900105	JP 1989-8769	19890119
HU 50775	A2	19900328	HU 1989-213	19890119
CN 1034716	A	19890816	CN 1989-100406	19890120
US 5173495	A	19921222	US 1990-564502	19900808
US 5470982	A	19951128	US 1992-950623	19920924
US 5502057	A	19960326	US 1993-92655	19930714

PRIORITY APPLN. INFO.: DE 1988-3801440 A 19880120
IT 1988-21587 A 19880729
US 1989-298453 A3 19890117
US 1990-587700 B3 19900925

OTHER SOURCE(S): CASREACT 112:158057
GI

L3 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

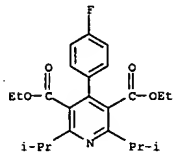


AB The title compds. I [R1 = (un)substituted aryl, heteroaryl; R2 = cycloalkyl, (un)substituted alkyl; R3 = H, cycloalkyl, (un)substituted alkyl, (hetero)aryl; X = CH2CH2, CH:CH; A = CH(OH)CH2CR4(OH)CH2CO2R5 or lactone ring Q; R4 = H, alkyl; R5 = H, alkyl, aryl, aralkyl, cation] were prepared as antihypercholesterolemics, specifically as inhibitors of HMG-CoA reductase. Thus, condensation of 4-FC6H4CHO with Me2CHCOCH2CO2Et (82.3%) and of the resulting enone with Me2CH(NH2)C:CHCO2Et (23.4%) gave dihydropyridinedicarboxylate II. By a sequence of aromatization (87.9%), reduction to the diol (66.7%), oxidation to the dialdehyde (85.3%), Wittig-type homologation (50%), reaction with the dianion of MeCOCH2CO2Me (53.6%), and NaBH4 reduction, II was converted to erythro-(E)-III (R = Me). At 8 mg/kg/day orally in beagles, the salt erythro-(E)-III (R = Na) lowered serum cholesterol by 22.4% in 2 wk.

IT 124863-79-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of antihypercholesterolemic)

RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:55616 CAPLUS
DOCUMENT NUMBER: 112:55616
TITLE: Preparation of 7-(4-aryl-3-pyridyl)-3,5-dihydroxy-6-heptenoates and analogs as hypocholesteremics
INVENTOR(S): Angerbauer, Rolf; Fey, Peter; Huebsch, Walter; Philipps, Thomas; Bischoff, Hilmar; Petzinna, Dieter; Schmidt, Delf; Thomas, Guenter
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 132 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 325130	A2	19890726	EP 1989-100250	19890109
EP 325130	A3	19901205		
EP 325130	B1	20031105		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
DE 3801406	A1	19890727	DE 1988-3801406	19880120
NO 8900047	A	19890721	NO 1989-47	19890105
NO 177005	B	19950327		
NO 177005	C	19950705		
EP 1123924	A1	20010816	EP 2001-109309	19890109
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
EP 1123925	A1	20010816	EP 2001-109310	19890109
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
AT 253560	E	20031115	AT 1989-100250	19890109
ES 2210221	T3	20040701	ES 1989-100250	19890109
CN 1034364	A	19890802	CN 1989-100326	19890117
CN 1055684	B	20000823		
DD 283400	A5	19901010	DD 1989-325090	19890117
FI 8900258	A	19890721	FI 1989-258	19890118
FI 93007	B	19941031		
FI 93007	C	19950210		
CA 1340798	A1	19991026	CA 1989-588502	19890118
AU 8928617	A1	19890720	AU 1989-28617	19890119
AU 642127	B2	19931014		
DK 8900233	A	19890721	DK 1989-233	19890119
JP 01216974	A2	19890830	JP 1989-8770	19890119
JP 2558344	B2	19961127		
ZA 8900429	A	19900228	ZA 1989-429	19890119
HU 50776	A2	19900328	HU 1989-214	19890119
HU 210727	B	19950728		
HU 52053	A2	19900628	HU 1989-5141	19890119
KR 132432	B1	19980417	KR 1989-550	19890119
CN 1274719	A	20001129	CN 2000-102357	20000217

PRIORITY APPLN. INFO.:
DE 1988-3801406 A 19880120
IT 1988-21317 A 19880711
EP 1989-100250 A3 19890109

L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
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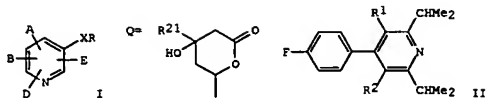
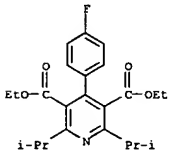
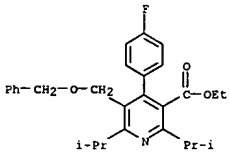


AB The title compds. [I: A = (un)substituted aryl, heteroaryl; B = cycloalkyl, (un)substituted alkyl; D,E = H, cyano, NO2, cycloalkyl, (un)substituted alkyl, heteroaryl, aryl, etc.; DE = CO2(CH2)m, WZCR13R14(CH2)m; R = CH(OH)CH2CR21(OH)CH2CO2R22, Q; R13, R14 = (un)substituted aryl, aralkyl, heteroaryl; R21 = H, alkyl; R22 = H, alkyl, aryl, aralkyl, cation; W = CO, CHOH; X = CH2CH2, CH:CH; Z = O, S, CH2, (un)substituted imino; m = 1-3] were prepared Thus, 4-FC6H4CH:C(COCHMe2)CO2Et (preparation given) was refluxed 18 h with Me2CHC(NH2):CHCO2Et in EtOH and the product stirred 1 h with DDQ (oxidizing agent) in CH2Cl2 to give phenylpyridinedicarboxylate II (R1 = R2 = CO2Et) which was converted in 4 steps to II (R1 = PhCH2OCH2, R2 = CHO). The latter was refluxed in THF with di-Et [2-(cyclohexylamino)vinyl]phosphonate which had been treated with NaH and the product refluxed with (CO2H)2 in PhMe to give II [R2 = (E)-CH:CHCHO] which was condensed with MeCOCH2CO2Me which had been treated with 2 equivalent amts. NaH to give, after reduction, title compound II [R1 = PhCH2OCH2, R2 = erythro-(E)-CH:CHCH:OH)CH2CH(OH)CH2CO2Me] which gave 66% reduction of serum cholesterol in dogs receiving 8 mg/kg orally daily.
IT **124863-79-2P 124863-88-3P 124864-26-2P**
124894-15-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of hypocholesteremics)
RN 124863-79-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

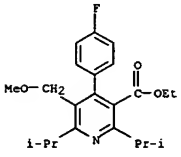
L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 124863-88-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-5-[(phenylmethoxy)methyl]-, ethyl ester (9CI) (CA INDEX NAME)

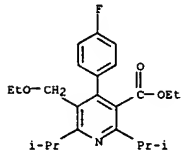


RN 124864-26-2 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 124894-15-1 CAPLUS
CN 3-Pyridinecarboxylic acid, 5-(ethoxymethyl)-4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, ethyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L3 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:533996 CAPLUS
DOCUMENT NUMBER: 111:133996
TITLE: 6-[[(Substituted)pyridin-3-yl]alkyl]- and alkenyl]tetrahydro-4-hydroxypyran-2-ones and open ring
acid derivatives, useful as inhibitors of cholesterol biosynthesis, and their preparation and pharmaceutical
compositions
INVENTOR(S): Chucholowski, Alexander Wilhelm; Roth, Bruce David; Creswell, Mark Wallace; Sliskovic, Drago Robert
PATENT ASSIGNEE(S): Warner-Lambert Co., USA
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 306929	A2	19890315	EP 1988-114629	19880907
EP 306929	A3	19900207		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4906624	A	19900306	US 1988-226190	19880802
ZA 8806098	A	19900425	ZA 1988-6098	19880817
AU 8821412	A1	19890309	AU 1988-21412	19880818
AU 620559	B2	19920220		
FI 8804080	A	19890309	FI 1988-4080	19880905
DK 8804974	A	19890309	DK 1988-4974	19880907
NO 8803974	A	19890309	NO 1988-3974	19880907
JP 01121266	A2	19890512	JP 1988-222593	19880907
US 4997837	A	19910305	US 1989-417996	19891006
PRIORITY APPLN. INFO.:			US 1987-94198 A	19870908
			US 1988-226190 A	19880802

OTHER SOURCE(S): CASREACT 111:133996; MARPAT 111:133996
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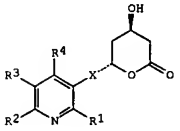
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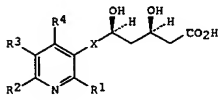
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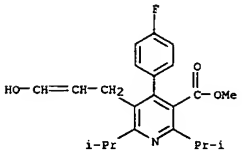
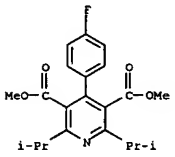
L3 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L3 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
AB Title pyranones I and acids II [X = CH2CH2, CH:CH; R1, R4 = alkyl, CF3, Cl, Br, certain cycloalkyl, heterocyclyl, or amino, (un)substituted Ph or PhCH2; also R1 = cyano, OR, SOnR where n = 0-2 and R = alkyl, (un)substituted Ph or PhCH2; R2 = H, alkyl, CF3, cyclopropyl, CH2OH, Cl, Br, certain heterocyclyl or amino, (un)substituted Ph; R3 = H, alkyl, cyano, NO2, (di)(alkyl)amino, Ph, CO2H, alkoxy- or phenoxycarbonyl, CH2OH, various amido; trans racemate of tetrahydropyran moiety] and their N-oxides, alkyl esters, and pharmaceutically acceptable salts are prepared as hypocholesterolemics and hypolipidemics. Cyclocondensation of (E)-PhCH:CHCHO with Me(H2N)C:CHCO2Et, aromatization of the resultant dihydropyridine, reduction of the ester with Dibal, and reoxidn. with (COCl)2/Me2SO gave 2-methyl-4-phenyl-3-pyridinecarboxaldehyde. Wittig reaction of this with Ph3P:CHCO2Me, reduction and reoxidn. as above, and condensation of the aldehyde with MeCOCH2CO2Et gave (E)-Et 5-hydroxy-7-(2-methyl-4-phenyl-3-pyridinyl)-3-oxo-6-heptenoate. Treatment of the latter with Et3B.THF/NaBH4/H2O2, saponification with NaOH in aqueous THF, and lactonization in refluxing PhMe gave I (X = CH:CH, R1 = Me, R2 = R3 = H, R4 = Ph) (III). At 1.5 mg/kg orally in rats, III gave 55% inhibition of cholesterol biosynthesis.
IT **122549-42-2 122549-43-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of hypocholesterolemic pyridinylalkyl- and -alkenyltetrahydrohydroxypyranones and derivs.)
RN 122549-42-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-fluorophenyl)-2,6-bis(1-methylethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



RN 122549-43-3 CAPLUS
CN 3-Pyridinecarboxylic acid, 4-(4-fluorophenyl)-5-(3-hydroxy-2-propenyl)-2,6-bis(1-methylethyl)-, methyl ester (9CI) (CA INDEX NAME)

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COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              66.47     228.01

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                              -9.49      -9.49

FILE 'REGISTRY' ENTERED AT 16:27:16 ON 16 APR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES:   15 APR 2005  HIGHEST RN 848629-85-6
DICTIONARY FILE UPDATES:  15 APR 2005  HIGHEST RN 848629-85-6

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
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Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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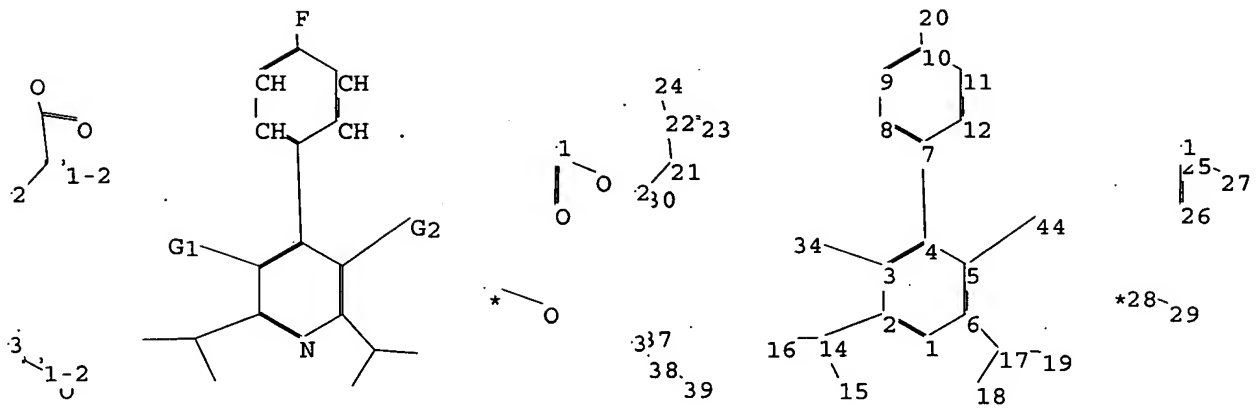

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14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 34 37 38 39
44
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :
2-14 3-34 4-7 5-44 6-17 10-20 14-15 14-16 17-18 17-19 21-22 21-30 22-23
22-24 25-26 25-27 28-29 37-38 38-39
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
3-34 5-44 22-23 22-24 25-26 25-27 28-29 38-39
exact bonds :
2-14 4-7 6-17 10-20 14-15 14-16 17-18 17-19 21-22 21-30 37-38
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 :

G1:[*1]

G2:O,[*2],[*1],[*3]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS 29:CLASS 30:CLASS 34:CLASS 37:CLASS 38:CLASS 39:CLASS 44:CLASS

```
L4      STRUCTURE UPLOADED

=> d
L4 HAS NO ANSWERS
L4              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


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FULL SEARCH INITIATED 16:27:34 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    558 TO ITERATE

100.0% PROCESSED     558 ITERATIONS                          0 ANSWERS
SEARCH TIME: 00.00.01

L5            0 SEA SSS FUL L4

=>

---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                              ENTRY    SESSION
FULL ESTIMATED COST                          161.33     389.34

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  SINCE FILE      TOTAL
                                              ENTRY    SESSION
CA SUBSCRIBER PRICE                            0.00      -9.49

STN INTERNATIONAL LOGOFF AT 16:27:49 ON 16 APR 2005
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